pubescent, sharply ridged; leaf-scars shield-shaped, with 3 bundle-scars. Leaves immense, crowded near the ends of the branches; petioles 1.5--2.5 cm. long, minutely closely tomentose; blades thinly coriaceous, subelliptic to oblanceolate, 13--65 cm. long, 6--22 cm. broad, truncate or obtuse at base, rounded at apex, the margins minutely and irregularly spinose-serrate, the leaf-surface densely brown-tomentose when young, becoming glabrous above, but persistently rusty-pubescent beneath, the hairs crowded, 3- or 2-branched from the summit of an erect stalk, the secondary nerves 1?--40 pairs, not greatly ascending (forming angles of 70 to 40 degrees), arcuate near the leaf-margins, somewhat impressed on the upper side of the leaf, the ribs and veins raised on the under side, the tertiaries prominent, the reticulation open and sharply raised, the venulae forming a prominulous network on the upper side. Inflorescences in dense clusters above the leaf-scars on defoliated branches; pedicels 4--6 mm. long, minutely and closely appressed-tomentose; sepals 5, slightly united at the base, orbicular-ovate, 2--3 mm. long, rounded at the apex, closely appressed-tomentose outside, the outer sepals sparsely pubescent within, the inner sepals glabrous within, membranous and minutely fimbriate on the margins. Corolla well exserted from the calyx, cylindric when fully expanded; corolla-tube about 2.5 mm. long, very sparsely appressed-pubescent in patches outside; corolla-lobes 5, ovate, 1.5--1.8 mm. long, somewhat acute at apex, glabrous. Complete stamens not seen (? reduced to sharp-pointed staminodes 1--1.3 mm. long); filaments attached near the base of the corolla-tube. Ovary densely hirsute, conical, merging into the style at the apex, 5-celled; ovules axile-basally attached; style very short, about 0.3 mm. long, grooved; stigma obscurely 5-lobulate.

Type: Ricardo de Lemos Fróes 1050, Brazil, Bahia, basin of Rio Pardo, municipality Itambé, savanna, November 19, 1942, deposited in the Krukoff Herbarium at the New York Botanical Garden. "Macaco Jaqueira". The type collection examined consists of two sheets, one of flowering material, the other of a single large leaf; the former is selected as the type.

Additional material examined: R. de L. Fróes 1038, Brazil, Bahia, basin of Rio Catole Grande, municipality Conquista, São Paulinho, November 11, 1942, deposited in the Krukoff Herbarium at the New York Botanical Garden. "Macaco Jaqueira". This sheet contains sterile branches with leaves.

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A NOTE ON SCHLEGELIA AND DERMATOCALYX

Joseph V. Monachino

During the course of routine work in the herbarium of the New York Botanical Garden I encountered a collection by Ducke (256; Yale Ser. No. 32632) from São Gabriel filed incorrectly

under Lissocarpa in the Styracaceae. I identified it from description as Schlegelia albiflora Kuhlmann, and incidentally made the following interesting discovery. Schlegelia Miq. (Bot. Zeit. 2: 785. 1844) and Dermatocalyx Oerst. (Kjoeb. Vidensk. Meddel. 29. 1856) are identical! The following new combination therefore becomes necessary:

SCHLEGELIA PARVIFLORA (Oerst.) Monachino, comb. nov.
Dermatocalyx parviflorus Oerst., in Kjoeb. Vidensk. Meddel. 29. 1856.

It is likely that the following names belong in the synonymy of the above-mentioned species:
Schlegelia cornuta J. D. Smith, in Bot. Gaz. 18: 6. 1893.
Schlegelia costaricensis Standl., in Field Mus. Publ. Bot. 18 (3): 1128. 1938.
Schlegelia ramizii var. macrandra Sandw., in Kew Bull. 1940: 303. 1941.
But to be certain of this it is essential to examine the types, as the descriptions alone are inconclusive. For the generic equivalence there is no doubt; furthermore, the specific epithet of D. parviflorus has precedence over all in Schlegelia except lilacina and elongata, two names generally considered to be synonyms of S. violacea (Aubl.) Griseb. The latter is a member of the section Euschlegelia, whereas S. parviflora belongs in the section Paratanaecium.

Of the material distributed as Dermatocalyx parviflorus in the herbarium of the New York Botanical Garden, a specimen from Panama (Almirante, prov. of Bocas del Toro, Proctor Cooper 167) compares with S. fastigiata Schery; the remainder falls into two series -- one, from Costa Rica and Guatemala, with the inflorescences glabrescent, and the other, from British Honduras and Honduras, with the inflorescences densely puberulous. The glabrescent specimens match the Costa Rican (Central Cordillera) Skutch 3324, identified by Sandwith as a somewhat atypical S. ramizii var. macrandra Sandw. These specimens are probably typical S. parviflora, the type of which was also collected in the mountains of Costa Rica. I am induced to draw this conclusion from the localization of Oersted's type as well as from the omission in the original description of any reference to the presence of indumentum ("frutex glaber"). With such rather negative evidence for ascertaining the fine points of varietal differences (specimens with puberulous inflorescences are found in Costa Rica), examination of the type deposited at Copenhagen becomes desirable. Only one specimen (Stevenson 83; Yale Ser. No. 14490) of the British Honduras puberulous material contains adequate corollas. In the flowers examined of this collection the filaments are about 2 mm. long and white-villose mostly toward the base, and the staminodes are likewise villose mostly toward the base; the immature flowers have filaments about 1 mm. long and densely villose for almost their entire length. The plant suggests

SCHLEGELIA PARVIFLORA var. TRICHANDRA (Sandw.) Monachino, comb. nov.

Schlegelia ramizii var. trichandra Sandw., in Kew Bull. 1940: 304. 1941,

although the indumentum character is not in complete harmony with that originally described for the variety.

Specimens of Schlegelia have been identified as verbenaceous because of their superficial similarities to Citharexylum and Aegiphila. On the other hand, the fact that Dermatocalyx has been placed in the Scrophulariaceae while Schlegelia was put in the Bignoniaceae involves a basic difficulty in classification. Hitherto there has been no suggestion of relationship between the two identical genera. Both were treated separately in Bentham and Hooker's Genera Plantarum (1876), Baillon's Histoire des Plantes (1888, 1891), Engler & Prantl's Die Natürlichen Pflanzenfamilien (1895), as well as in some more recent works, such as the Flora of Costa Rica (Field Mus. Publ. Bot. 18: 1105, 1128. 1938). For the most part this oversight has been due to inadequate material, as the genus is strikingly characteristic and should have commanded attention by its anomaly in either the Bignoniaceae or the Scrophulariaceae. In Martius' Flora Brasiliensis (1897) Schlegelia is placed together with Crescentia in the tribe Crescentieae. Assuredly the two genera are easily separated by the differences presented in the Flora. The key difference of bilocular versus unilocular ovary is deeply significant, but the seed morphology of Schlegelia is not given the attention deserved.

The flowers of Schlegelia can be admitted in both the Bignoniaceae and the Scrophulariaceae. The seeds more strongly suggest Scrophulariaceae. They are numerous, axile, somewhat quadrangular or trigonous with 4 or 3 very faint margins, about 2 mm. long and 1 mm. wide, and have a minutely reticulate surface. The embryo is erect, almost the size of the seed, and is covered by a substantial fleshy coat (albumen). The cotyledons are oval to suborbicular, thickish, the caulicle is about 0.7 mm. long. The seed and embryo are oversized for Scrophulariaceae, but more nearly conform to the latter than to Crescentia or Bignoniaceae in general.

The importance of seed character as a deciding factor between these two families has been discussed by D. H. Campbell (The relationships of Paulownia, Bull. Torr. Bot. Club 57: 47--50. 1930). The subject of relationships in borderline genera is provocative in general, and Schlegelia particularly deserves further investigation.

The genus Dermatocalyx, and thus by implication its position in the Scrophulariaceae, was accepted by J. D. Smith in 1899; also by H. N. Moldenke who in 1934 referred to D. parviflorus a plant misidentified as Aegiphila, and who in 1946 described a new Ecuadorian species in the genus. Dermatocalyx is treated in the Scrophulariaceae by Record & Hess in Timbers of the New World (1943).

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dracaeae (by C. Skottsberg), Ancistrocladaceae, Aponogetonaceae, and Actinidiaceae (all by Van Steenis), Burmanniaceae (by E. P.